

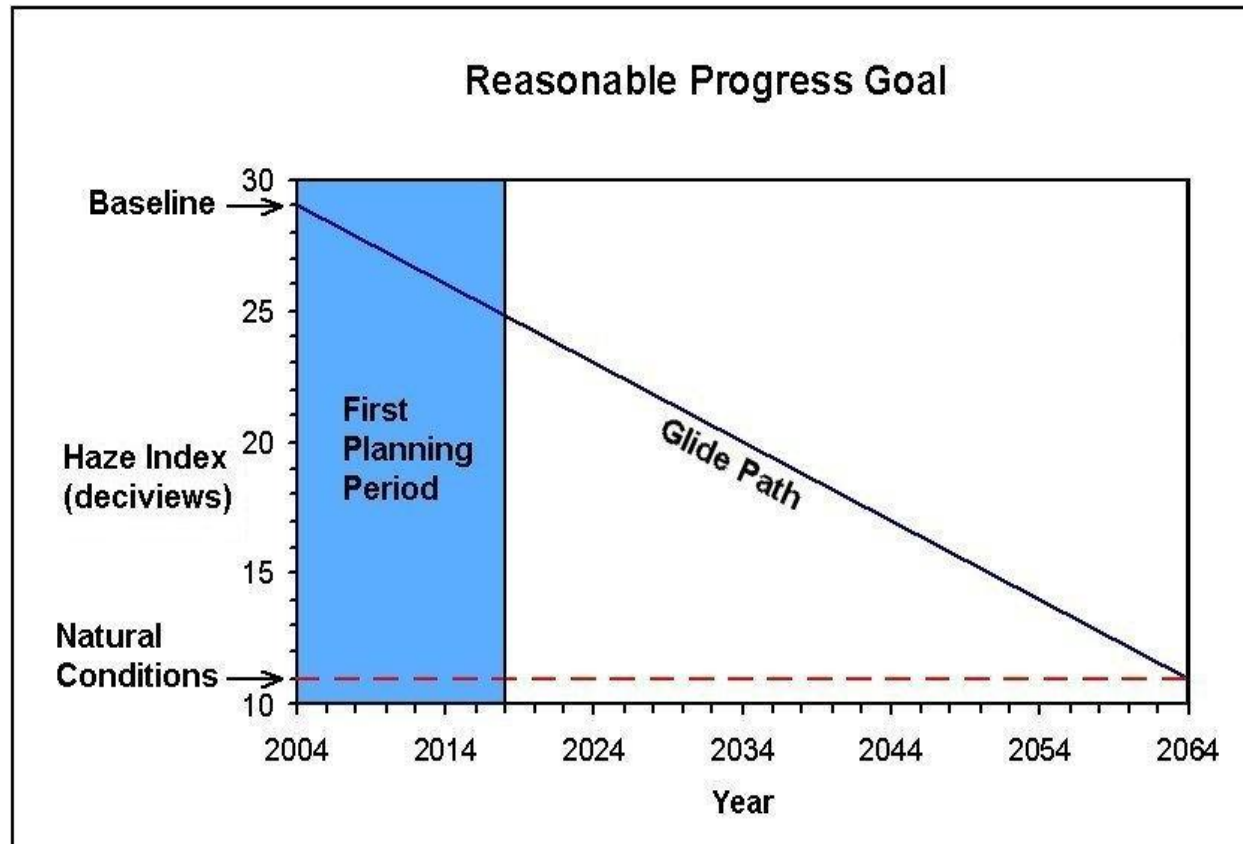
Conducting Reasonable Progress Determinations under the Regional Haze Rule

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January 11, 2006

What is the Clean Air Act visibility goal?

- CAA goal of natural visibility conditions at Class I areas
- RHR establishes 60-year time horizon for attaining the goal



How should Reasonable Progress Goals (RPGs) be set?

- The first RPG describes the visibility conditions expected to be achieved when the first long term strategy (covering the planning period to 2018) is fully implemented.
- **RPGs for each long term strategy should be selected based on BOTH:**
 1. The uniform rate of progress for each Class I area, and
 2. The control strategies identified through application of the statutory factors.

Calculating the the uniform rate of progress

- The uniform rate of progress is the minimum rate of progress needed to achieve the CAA goal of natural conditions within 60 years (to 2064).
- The URP for each 10-year long term strategy = the visibility improvement along the glide path for that planning period.

Note that the URP does NOT automatically = the reasonable progress goal.

Developing and selecting control measures using the statutory factors

Steps:

- a. Identify sources and source categories that contribute significantly to visibility impairment at each Class I area.
- b. Determine the key pollutant species.
- c. Identify control measures and associated emission reductions:
 - Expected from existing rules
 - Available beyond current and expected controls
- d. Apply the statutory factors to all identified control measures.

Overview of iterative process for setting RPGs

1. Consider Statutory Factors:

Combine the control measures evaluated based on the statutory factors for an overall suite or suites of control strategies.

2. Compare to Uniform Rate of Progress:

Compare visibility conditions resulting from each suite of control strategies to the URP for each Class I area.

3. Select RPG

Select an RPG for each Class I area based on an overall suite of control strategies that will improve visibility at or beyond the URP.

CAA Statutory Factors

Clean Air Act section 169A(g)(1) identifies four factors to be “taken into consideration” in determining reasonable progress:

- a. Cost of compliance
- b. Time necessary for compliance
- c. Energy and nonair quality environmental impacts of compliance; and
- d. Remaining useful life of any existing source subject to such requirements.

Applying the statutory factors

a. Cost of Compliance

- Apply to sources or source categories
- General steps:
 - Identify emission units to be controlled
 - Identify design parameters for controls
 - Develop cost estimates

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Applying the statutory factors

a. Cost of Compliance, con't

Specific considerations:

Design parameters should be based on typical operation

- Suggested information sources include EPA documents, engineering and performance test data, vendor information, data in trade publications.
- All analysis should be well documented

Cost estimates should be documented, and based on vendor estimates or reference sources, preferably the EPA Control Cost Manual.

Applying the statutory factors

b. Time necessary for compliance

- The RPG may reflect measures for which the compliance period exceeds the planning period; for example where availability of labor is a constraint.
- The RPG should then reflect the amount of control that will be completed within the planning period.

Applying the statutory factors

- b. Time necessary for compliance, con't.
 - A long term strategy projecting most of the improvement toward the end of the planning period may need to demonstrate greater relative visibility improvement due to greater uncertainty.

Applying the statutory factors

c. Energy and non-air impacts

Energy

- Only direct energy impacts should be considered.
- Indirect energy impacts should be only be considered if unusual or significant, and well-documented and quantified.

Applying the statutory factors

c. Energy and non-air impacts, con't

Non-air impacts

- Should include any significant or unusual environmental impacts associated with controls
- Analysis should be site-specific
- Example types of impacts:
 - Effects on ground or surface water
 - amount and composition of solid waste produced
 - Irreversible or iretrievable commitment of resources
 - Benefits to the environment

Applying the statutory factors

d. Remaining useful life of the source

- Only applicable to retrofit controls at existing sources.
- May affect the importance of addressing particular source types.
- The remaining useful life of a source, if short, may affect the annualized costs of control.
- Should only affect individual source analysis if documented with an enforceable permit condition.
- Could apply on a source category basis; use well-documented average retirement rates.

Selecting Reasonable Progress Goals

- **To reiterate final step: model suites of controls that meet the statutory factors, and compare to uniform rate of progress.**
- **Select an RPG for each Class I area that results in visibility improvement at or beyond the glide path.**
- ***What if control suites that meet the factors cannot achieve enough improvement ?***
 - Guidance on limits to costs by pollutant or sector
 - Establish 5-year check of assumptions used to support the goal selected.